

Abstract of the Disclosure

Doped phosphors (e.g., metal orthosilicates) are made by adding solid particulate precursor to a solution of an alkoxide precursor and a dopant precursor before hydrolysis is allowed to occur. The mixture is then allowed to hydrolyze, resulting in a sol-gel condensation reaction. The solid particulate precursor can be fumed silica, and acts as a nucleation site for the sol-gel reaction product. After the sol-gel reaction, the mixture is dried and fired to form phosphors. The phosphors are especially suitable for applications in which there is low voltage operation.